Compare and Contrast
Use the Venn Diagram that follows to list how these turtles are different and the same.
Same
Mary Singer
Born 1936, Santa Clara Pueblo, New Mexico
*Turtle*, 1976
Black on black earthenware
Gift of Mary Cottom, 2014.438

Singer created this turtle (order *Testudines*) in the famous polished blackware pottery tradition of the Santa Clara Pueblo. The turtle in Southwest tribes such as the Hopi and Navajo represents water, a precious commodity in the region.

This turtle is about 6” in diameter. He has a Sun face on his shell.
Norman Akers (Osage Nation and Pawnee)  
Born 1958, Fairfax, Oklahoma  
Ships of Change, 2008  
Monotype  
Friends of the Beach Museum of Art Kansas Art Fund, 2012.148

Native American creation stories tell of how the earth was formed by piling soil on the back of a great sea turtle. Many indigenous tribes still refer to North America as Turtle Island. Akers’ art is often collage-like and filled with symbolic imagery that is sometimes connected to Native beliefs and sometimes open to interpretation. In this case, the turtle might be understood as the original “ship,” seen alongside early European sailing vessels.
Turtle, tortoise, and terrapin are all names for the hard-shelled, egg-laying reptiles in the taxonomic order *Chelonia*.

Turtle is often used to refer to sea turtles that rarely leave the ocean. They are omnivores. They have front flippers and webbed back feet and a streamline shell. They are air breathing so have to surface to get oxygen.

The word tortoise is used to refer to turtles that spend most of their time on land, eating shrubs and grasses. Unlike their aquatic relatives, tortoises don't have webbed feet, since they don't spend much, if any, time in the water. They also have domed shell.

Terrapins are turtles that spend time both on land and in brackish, swampy water. The word “terrapin” comes from an Algonquian Indian word meaning “a little turtle.” They have webbed feet with claws. Their shells are similar to a tortoise but less domed.
A sampling of turtle types

- Alligator snapping turtle
  (Macrochelys, or Macrolemys, temminckii)

- Eastern mud turtle
  (Kinosternon subrubrum)

- Green turtle
  (Chelonia mydas)

- Eastern box turtle
  (Terrapene carolina)

- Eastern painted turtle
  (Chrysemys picta picta)

- Spotted turtle
  (Clemmys guttata)

- Galapagos giant tortoise
  (Geochelone nigra)

- Common map turtle
  (Graptemys geographica)

- Blanding's turtle
  (Emydoidea blandingii)

- Spiny softshell turtle
  (Apalone spinifera)

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The Galápagos tortoise complex is a set of 15 species (12 extant and 2-3 extinct) of very large tortoises in the genus *Chelonoidis*. They are the largest living species of tortoise, with some modern Galápagos tortoises weighing up to 919 lb.

With lifespans in the wild of over 100 years, they are one of the longest-lived vertebrates. Captive Galapagos tortoises can live up to 177 years. Spanish explorers, who discovered the islands in the 16th century, named them after the Spanish *galápago*, meaning "tortoise".

The Galápagos tortoises are native to seven of the Galápagos Islands. Shell size and shape vary between populations. On islands with humid highlands, the tortoises are larger, with domed shells and short necks; on islands with dry lowlands, the tortoises are smaller, with "saddleback" shells and long necks. Charles Darwin's observations of these differences on the second voyage of the Beagle in 1835, contributed to the development of his theory of evolution.
Ornate Box Turtle - state reptile of Kansas

The ornate box turtle (*Terrapene ornata ornata*) is one of only two terrestrial species of turtles native to the Great Plains of the United States. The ornate box turtle is a relatively small turtle. Males and females generally look alike but males are often smaller; there is color variation with yellow lines from the center of the shell to the edges through gray, red-brown, or black coloration. Besides the size, males can be distinguished from females in several ways; a large curved inner claw on the back feet, a cloacal opening that is farther back in males, a longer and thicker tail, and reddish color on the legs and occasionally on the jaw, and red eyes.

The ornate box turtle, like all reptiles, is ectothermic, which means that its body temperature is affected by the environmental temperature and the environmental temperature affects its movement.

The ornate box turtle is an omnivore, with no particular dietary preferences; as an opportunistic feeder, it eats whatever is available in any given location or season - grasses, berries, insects and other invertebrates (caterpillars, grasshoppers, beetles, earthworms), fruits, vegetables, and carrion.

Their eggs take about 60 days to hatch. Ornate box turtles live 32-37 years.
What does a turtle look like inside it’s shell?
https://www.youtube.com/watch?v=V17T_5jRE2M

A turtle’s shell is not just its home. It is also a part of their body. It protects them from predators and the environment. Scientists originally thought that a turtle shell was an extension of their backbone and ribs. However, it was discovered to be much more than that. It not only incorporates their skeleton, but it is also an external bony structure.

The spinal column and rib cage are built into the carapace. The plastron protects important organs like the lungs and heart. The shell is an important part of a turtle’s anatomy which includes their rib cage, spinal cord, and nerve endings. It is made up of bone, nerves and blood vessels. A turtle can feel if you touch them on the shell because there are nerve endings in it.

Nerves and blood vessels all connect the shell to the turtle’s body. The bones fused to the shell are already a part of their body. There is no barrier between the turtle’s bones and its internal organs. A turtle can not leave or live without its shell.
Turtle Island

'Turtle Island' is the name for the lands now known as North and Central America. It is a name used by some Indigenous peoples who believe their land was formed on the back of a turtle.

Though regional versions exist, the core of this Anishinaabe creation story relates to a time when the planet was covered in water. Different animals all tried to swim to the bottom of the ocean to bring back dirt to create land but they all failed. A muskrat was the last animal to attempt the task. The muskrat swam deep and remained under water for a long time. Eventually the muskrat resurfaced with some wet soil in its paws. Sadly the swim took the muskrat’s life, but Nanabush (a supernatural being who has the power to create life) took the soil and placed it on the back of a turtle. With this act, land began to form and so became Turtle Island.
Learn more about turtles
Delores Lewis Garcia (Acoma Sky Pueblo)
*Turtle figurine*, 1974
Earthenware with pigment
KSU, Marianna Kistler Beach Museum of Art, gift of the Estate of Lolafaye Coyne, 2015.43
Barbara Waterman-Peters

*Shell Shelf*, 1998, printed 1999
Lithograph (aluminum plate) on paper
KSU, Marianna Kistler Beach Museum of Art, gift of Larry Peters and Barbara Waterman-Peters, 2016.161
Can you tell what type of turtle is featured in this print?

**Fred Lawyer**  
*Title unknown* (wildlife scene), late 20th century  
Etching on paper  
KSU, Marianna Kistler Beach Museum of Art, 2004.127
Picture Books

- Turtle Splash!
- Follow the Moon Home
- Memoirs of a Tortoise
- I'll Follow the Moon
*Fables*, or the *Aesopica*, is a collection of fables credited to Aesop, a slave and storyteller believed to have lived in ancient Greece between 620 and 564 BCE. *The Tortoise and the Hare* is one of the most famous of these fables. 
https://www.youtube.com/watch?v=a6M2mwhThXQ
The clay turtle featured earlier in the week provides a base for all sorts of shell designs from painted to incised to stamped. Two good clay choices are Crayola’s Model Magic and Air Dry clays. But you can easily make your own clay:

- 1 cup cornstarch
- 1 cup white craft glue
- 1 tablespoon white vinegar or lemon juice as a preservative
- 1 tablespoon mineral or vegetable oil which creates a smooth silky texture

Cook over medium heat. The mixture will change from a soft paste to a consistency of mashed potatoes. Make sure to cook it till it pulls away from the pan. Turn off the heat.

IMPORTANT tip:
If you under-cook the baking soda clay dough or use too much water, the dough will be sticky and prone to cracking!
Nature has created beautiful box turtle patterns. You can create your own.

NEVER, EVER PAINT ON A REAL TURTLE’S SHELL!
Turtle artworks are common from Aboriginal artists from the northern areas of Australia. Turtles are a food source for Indigenous communities and therefore appear as totems and in Dreamtime stories and Creation myths. Indigenous people respect the food resources that sustain them and they celebrate the turtle in rituals that aim to increase the bounty of the species.

Think about what you could use to make your dots – a pencil eraser? What else could you use?

*How the Turtle Got its Shell* – Aboriginal tale

[https://www.youtube.com/watch?v=EOQZ2Gg1P4M](https://www.youtube.com/watch?v=EOQZ2Gg1P4M)
Tlingit, Haida and Inuit artists also feature turtles. Northwest Indian tribes often associate animals like turtles with the names of clans, and they are sometimes featured on Totem Poles.
If you can’t get to the Beach, you can buy seashells at a craft store

Collage with paper or fabric
how to Make an Origami Turtle

1. Fold a square paper in half
2. Open the fold
3. Flip the paper
4. Fold along the imaginary dotted line on the right half
5. Do the same with the left half
6. Flip the whole paper
7. Note the red dotted line and fold along it
8. Do the same on the left side
9. Open up the fold in the back
10. Do the same for the other side
11. Fold down the middle, along the dotted line
12. Fold again, along the red dotted line
13. Make a small flip at the top, see the arrow
14. Fold the right lower part along the dotted line
15. Fold the left part, both tips meeting at the center
16. Follow the arrow and dotted line to fold the left flap
17. Do the same for the right flap
18. See the circled arrows, round those corners a little
19. Flip the whole paper
20. Your turtle is ready